

## HABITS OF SOME WEST COAST SEALS

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Recently, I had occasion to look up information on certain seals in the classical works by Scammon and Allen and I find that some notes I have on the habits of two of our southern California species may prove of interest.

Practically all of my notes on the pinnipeds were made before I took an active interest in mammals, but I had some little opportunity to become familiar with them, for, while working in 1910 with the International Fisheries Company in Lower California, Mexico, I spent two months, with a dozen Yaqui Indians, on Los Coronados Islands. Seals of two species were abundant, and as our constant diet of fish and spiny lobsters soon palled, we began weekly visits to the rookeries to obtain fat yearlings. In addition, I made many other trips to the different islands, and spent many an hour watching the herds from hidden retreats.

The California sea lion (*Zalophus californianus*) is abundant in the coastal waters of southern California, but to me, it has always seemed a sluggish, rather uninteresting animal which hardly repays protracted watching. An hour or two spent in a rookery will reveal little but basking animals, some occasionally slipping into or out of the water, and the proper complement of pups nosing about in a stupid manner. On June 3, 1910, the pups—two score of them—were a week or more old and when we suddenly rushed the colony to obtain a yearling before he could slip into the water, the younger animals were not greatly concerned as long as we approached no nearer than about fifteen feet. They presented, when beating a retreat, a most ludicrous appearance, for their efforts were out of all proportion to the speed attained, and they worked so hard, and progressed so slowly, that they seemed almost to be jumping up and down in one spot. When we laid hold of one, it emitted a loud, staccato bleating, comparable to the noise made by certain exotic goats which I have heard in zoological parks. The pups readily take to the water at this age, but their swimming is poor and their actions in this direction quite similar to those when "running" on land. In fact, it was so apparent that immersion in a rough sea at such a tender age must prove fatal to many, that we molested them as little as possible thereafter. While we were in the rookery, the females exhibited considerable anxiety, racing back and

forth at a distance of a hundred yards from shore and frequently leaping entirely out of the water in graceful curves.

The killer whale (probably *Orcinus ater*) is not rare in these waters and must take considerable toll of the seals. I also suspect the huge sharks, locally known as "leopard sharks," of a similar dietary taste. It is said that these big fellows, appearing to be at least eighteen feet long in some cases, are transient visitors from the south, and spend a week or more in the cold waters about the islands in order to free themselves of certain parasites. I can answer to the fact that they furnish rare sport with the harpoon.

At occasional spots on the islands, there occur caves which are popularly known as blow-holes. The entrances to these are chiefly below water, but, at certain stages of the tides, the top of the entrance is above water in the trough of a swell, and below at the crest. When the latter condition obtains, there is considerable pressure exerted upon the air in the cave, and this rushes forth through the wave with a booming noise, sending the spray high in the air—at one spot of which I know, as high as fifty feet when the trades are blowing strong and causing large swells. California sea lions delight to enter these caves to bark for half an hour at a time, and the resultant racket produces some weird acoustic effects.

The Yaquis, being pearl divers from the Gulf of California, were almost amphibious themselves, and constantly slipped over the sides of their cumbersome canoes, dug from a single log, to investigate the bottom for signs of spiny lobsters and fish. On two such occasions, the men were approached by seals, which exhibited the greatest astonishment and curiosity at finding such strange creatures in the water.

The California harbor seal (*Phoca richardii geronimensis*) is found about the islands, but in far smaller numbers than its larger relative, and the two genera apparently shun each other. In a shallow, rocky cove on the seaward side of the larger middle island of Los Coronados group, there is a hauling-out ground where about twenty-five of these animals could usually be found, and I spent considerable time in their company. A favorite position for them, and one which would seem to be the height of discomfort, was on a little pinnacle of rock, not over a foot in diameter at the top, and this was rarely unoccupied except at high tide. A seal would balance on this amidships, with every evidence of extreme satisfaction, head hunched in as when resting, fore flippers close to his sides, and rear ones extended straight out behind. There he would stay until dislodged by a companion or

washed off by the rising tide. He would remain just as long as he was able, and as the tide rose and each wave snatched at him, he would jerk both extremities of his body as far from the water as possible, looking like some queer, animated toy.

I was lucky enough, one day, to surprise five or six yearlings in a large, isolated tide pool that was a veritable gem of a sea garden. Here I kept them for ten or fifteen minutes while I watched their graceful movements. They swam at relatively great speed near the bottom of the pool, rolling their large eyes at me and dodging when I waved my arms. I was surprised to find that they did not use the fore flippers when swimming but kept these closely pressed to the sides, while the hind ones, placed "palm to palm," were moved rhythmically from side to side after the manner of a fish's tail, and furnished the sole means of propulsion. When a quick turn was desired, however, a fore flipper was extended and literally pushed against the water, as a running child might push with his hand against a wall to make a quick dodge. When pressed for air they arose to the surface for an instant, and then submerged with the celerity of a grebe. One dashed from the pool and made for the sea, but became wedged between two rocks, where I promptly laid hold of his rear flippers and, with considerable difficulty, hauled him forth. But he did not play fair, for he ejected a vile, excrementitious brew upon me, whereupon I incontinently released him and departed elsewhere.

These animals are much more wary than their larger cousins, and, at least when on the alert, they have a curious mode of submerging. While I was watching the individuals in the pool the remainder of the animals were a short distance off shore in a great state of excitement. Each one at times rose high out of the water, "stood" straight up, stared a moment, and then, by violently slapping one flipper on the surface, and probably raising the other through the water at the same time, submerged sideways as quick as a flash.

The above observations on the harbor seals were made on, or prior to, June 22; and at that date no young pups were in evidence.

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